

CLAIMS

What is claimed is:

1. A refrigerator, comprising:
 - a cabinet having an inner casing to define an inner surface of the refrigerator and an outer casing to define an outer surface of the refrigerator;
 - a machine room defined by the outer casing so as to be provided outside the outer casing;
 - a cooling compartment defined by the inner casing;
 - a compressor disposed at a predetermined position of the machine room;
 - a cooling set disposed at a predetermined position of the cooling compartment, having an evaporator; and
 - a flexible refrigerant pipe connecting the compressor to the evaporator.
2. The refrigerator according to claim 1, wherein the refrigerant pipe is able to resume a former shape.
3. The refrigerator according to claim 1, wherein the cooling set further comprises a fan and a fan motor .
4. The refrigerator according to claim 3, wherein the elements of the cooling set are assembled into a single structure.
5. The refrigerator according to claim 1, wherein upper surfaces of the inner and outer casings have a same stepped structure, and the machine room is provided in a space which is defined above a lower portion of the stepped structure of the outer casing .
6. The refrigerator according to claim 1, wherein upper surfaces of the inner and outer casings have a same stepped structure, and the cooling set is provided in a space which is defined under an upper portion of the stepped structure of the inner casing.
7. The refrigerator according to claim 6, wherein the cooling set further comprises an evaporator fan and an evaporator fan motor, the evaporator fan and fan motor being provided above the evaporator.
8. The refrigerator according to claim 7, wherein elements of the cooling set are assembled into a single structure.

9. The refrigerator according to claim 8, wherein the cooling set further comprises a plurality of sensors electrically controlling the cooling set and other devices.

10. The refrigerator according to claim 7, wherein the cooling set further comprises a cover to cover a bottom of the evaporator.

11. The refrigerator according to claim 10, wherein the cover further comprises a plurality of circulation apertures which circulate cool air.

12. The refrigerator according to claim 10, wherein elements of the cooling set are assembled into a single structure.

13. The refrigerator according to claim 5, wherein the stepped structure has the lower portion thereof defined at a front portion of the refrigerator, and the upper portion thereof defined at a rear portion of the refrigerator.

14. The refrigerator according to claim 1, wherein the cooling compartment further comprises a pipe cover to cover the refrigerant pipe.

15. The refrigerator according to claim 14, wherein the pipe cover further comprises a plurality of circulation apertures which circulate cool air.

16. The refrigerator according to claim 1, wherein the refrigerant pipe passes through the inner and outer casings to connect the compressor to the evaporator.

17. The refrigerator according to claim 1, wherein the refrigerant pipe has a bellows pipe structure.

18. The refrigerator according to claim 1, further comprising a pipe connecting the evaporator to other elements in a cooling system, wherein the pipe is flexible and able to return to a former shape.

19. The refrigerator according to claim 1, further comprising connecting parts provided at opposite ends of the refrigerant pipe, wherein the connecting parts are connected to the evaporator and the compressor, respectively.

20. A refrigerator, comprising:
a cabinet;
a machine room defined outside the cabinet;

a cooling compartment defined in the cabinet;
a compressor disposed at a predetermined position of the machine room;
an evaporator disposed at a predetermined position of the cooling compartment;
an evaporator's peripheral unit comprising an evaporator fan and an evaporator fan motor; and
a flexible refrigerant pipe connecting the compressor to the evaporator.

21. The refrigerator according to claim 20, wherein the refrigerant pipe is able to resume a former shape.

22. The refrigerator according to claim 20, wherein the evaporator is disposed so as to be movable by a predetermined distance, thus allowing the evaporator's peripheral unit to be replaced or repaired.

23. The refrigerator according to claim 20, wherein the evaporator and the evaporator's peripheral unit are assembled into a cooling set of a single structure.

24. The refrigerator according to claim 23, wherein the cooling set further comprises a plurality of sensors electrically controlling the cooling set and other devices.

25. The refrigerator according to claim 23, wherein the cooling set further comprises a cover to cover an outer surface of the cooling set.

26. The refrigerator according to claim 25, wherein the cover further comprises a plurality of circulation apertures which circulate air.

27. The refrigerator according to claim 20, wherein the refrigerant pipe has a bellows pipe structure.

28. The refrigerator according to claim 20, further comprising a pipe connecting the evaporator to other elements in a cooling system, wherein the pipe is flexible and able to return to a former shape.

29. A cooling system, comprising:
a compressor to compress a refrigerant, thus increasing pressure of the refrigerant;
a condenser to condense the compressed refrigerant ;
a pressure reducing unit to reduce pressure of the condensed refrigerant ;
an evaporator's peripheral unit comprising an evaporator fan and an evaporator fan motor;

an evaporator to absorb heat from surroundings by evaporation of the pressure-reduced refrigerant ; and
a flexible refrigerant pipe to connect the compressor to the evaporator.

30. The cooling system according to claim 29, wherein the refrigerant pipe is able to resume a former shape.

31. The cooling system according to claim 29, wherein the evaporator is disposed in such a way as to be movable by a predetermined distance, thus allowing the evaporator's peripheral unit to be replaced or repaired.

32. The cooling system according to claim 29, wherein the evaporator and the evaporator's peripheral unit are assembled into a cooling set of a single structure.

33. The cooling system according to claim 32, wherein the cooling set further comprises a plurality of sensors electrically controlling the cooling set and other devices.

34. The cooling system according to claim 32, wherein the cooling set further comprises a cover to cover an outer surface of the cooling set.

35. The cooling system according to claim 34, wherein the cover further comprises a plurality of circulation apertures which circulate air.

36. The cooling system according to claim 29, wherein the refrigerant pipe has a bellows pipe structure.

37. The cooling system according to claim 29, further comprising a pipe connecting the evaporator to other elements in the cooling system, wherein the pipe is flexible and able to return to a former shape.